

STATE EXPERT APPRAISAL COMMITTEE (SEAC), BIHAR

Ref. No- 114

Patna- 23, Date- 02/06/2020

To,

1. Shri Murarijee Mishra
Vijay Nagar, Near Temple,
Rukunpura, Patna - 800014
2. Shri Vijay Kumar Sinha, IFS (Retd.),
Prasad Bhawan, R. K. Path,
Pirmohani, Kadamkuan, Patna - 800 003.
3. Dr. Amar Nath Verma,
10192 ATS Advantage, Ahinsha Khand - 1,
Near Habitat Centre, Indirapuram,
Ghaziabad - 201014,
4. Dr. Shardendu,
Department of Botany,
Patna Science College, Patna
5. Dr. Samir Kumar Sinha,
Wildlife Trust of India,
F-13, Sector - 8, Noida, Uttar Pradesh - 201301.
6. Dr. Birendra Prasad,
Department of Botany,
Patna University,
Patna - 800 005.
7. Dr. Rakesh Kumar Singh,
G - 600, 12th Street, GAMA - II, Greater Noida (UP) - 201 310.
8. Dr. Dilip Kumar Paul,
Assistant Professor & Course Coordinator, M.Sc.
Environment Science & Management, Post Graduation Department of Zoology,
Patna University, Patna, Bihar - 800 005

Sub :- Proceedings of meeting of State level Expert Appraisal Committee held on 19.05.2020, 21.05.2020 and 22.05.2020.

Sir,

Please find enclosed herewith proceedings of the State Expert Appraisal Committee (SEAC) meeting held on 19.05.2020, 21.05.2020 and 22.05.2020.

Yours sincerely,



(Alok Kumar)
Member Secretary
SEAC, Bihar

Proceedings of the State Expert Appraisal Committee (SEAC) meeting dated 19.05.2020, 21.05.2020 and 22.05.2020.

The meeting of SEAC was held through video conferencing on 19th, 21st and 22nd May 2020 as per the revised schedule notified vide. No. 105 dated- 13.05.2020. Meeting was held utilizing the facilities curtsey Bihar State Pollution Control Board, Patna and was attended in person by Chairman and Member Secretary, other members participating through video link. The attending members were as under:-

1. Shri Vijay Kumar Sinha
2. Dr. Amar Nath Verma
3. Dr. Shardendu,
4. Dr. Samir Kumar Sinha
5. Dr. Birendra Prasad,
6. Dr. Rakesh Kumar Singh
7. Dr. Dilip Kumar Paul

Proposals were taken up for consideration in the meeting as per agenda. Project Proponents along with their respective accredited Consultants made presentation before the Committee. Agenda wise details are as under:-

Agenda Item No.- 1, 13 , 17, 18 (Ref. No. 98, dated.08.05.2020) and 1, 1 , 2, (Ref. No. 99, dated. 11.05.2020)

1. Triveni Smelters Private Limited at Village: - Raipura, Tehsil:- Fatuha Industrial Area, District:- Patna, Bihar, Total Plant Area – 3.95 Acres, Proposed Expansion:- Induction furnace MS Ingot / Billet :- 42,000 Ton/Annum Phase-I. 1,50,000 Ton/Annum Phase-II. Re-rolling Mill TMT Bar/ Rods:- 42,000 Ton/Annum Phase-I. 1,50,000 Ton/Annum Phase-II. (FileNo. - SIA/3(a)/536/18). **Online Proposal No.:** - **SIA/BR/IND/27926/2018).**

Proponent: - M/s Triveni Smelters Private Limited.

Consultant: - PARAMARSH (Servicing Environment and Development).

Application along with filled up 'Form - I' and Prefeasibility report in the prescribed format was submitted to SEIAA, Bihar on 18th July, 2018 for obtaining Terms

of Reference (ToR). SEIAA, Bihar issued ToR Vide F. No. SIA/3(a)/536/18, dated 16.01.2019 and public hearing for the proposed project was conducted by Bihar State Pollution Control Board on 06.07.2019. Final EIA report was submitted by Project Proponent in the prescribed format to SEIAA, Bihar on 13.12.2019 for obtaining Environmental Clearance (EC).

The Proponent and Consultant presented the proposal before the Committee. The Committee sought information / reports as under:-

1. Submit Revised Form-2.
2. Upload latest monitoring (inspection) report of the Regional office of MoEF&CC, GoI and compliance report submitted by Project Proponent.
3. Rate of emission and emission factors from various sources which are used to run AERMOD is not disclosed in the EIA report.
4. Cumulative impact on Ambient Air Quality due to other industries located within the 10 km radius is not accounted for calculating GLC concentration of air pollutant from air modelling i.e. AERMOD.

13. CRESCENT (Residential Building Project) at Mauza – Chitkohra, Tehsil:- Patna Sadar, District- Patna, State:- Bihar, Total Plot Area :- 12,908.34 m², Total Built-up Area:- 53,069.95 m², (**File No. - SIA/8(a)/700/19**), **Online Proposal No. : - SIA/BR/MIS/123681/2019**).

Proponent: - M/s Nutan Construction.

Consultant: - PARAMARSH (Servicing Environment and Development).

Application along with filled up Form - I, Form - I (A) and Conceptual Plan in the prescribed format was submitted to SEIAA, Bihar on 16th December, 2019 for obtaining Environmental Clearance (EC).

The Project Proponent requested vide letter No. SEAC/EC/20 Rev dated- 13.05.2020 that since there are some deficiencies in the report submitted by them such as Form - I (A), conceptual plan, etc., they want to improve / revise. Earlier also in the meeting dated 28th January, 2020 the Project Proponent was absent with a request to defer

hearing for the next meeting. The request was accepted by the Committee as a last chance.

17. "M/s Surya Nestbuild Limited" Residential Building Project at Mauza:- Mustafapur, Village:- Mustafapur, Tehsil:- Danapur, District:- Patna, State:- Bihar, Total Plot Area :- 19,667.72 m², Total Built-up Area:- 83,224.10 m², (File No. - SIA/8(a)/987/20), **Online proposal No.: - SAI/BR/MIS/135121/2020).**

Proponent:- M/s Surya Nestbuild Limited.

Consultant:- PARAMARSH (Servicing Environment and Development).

Application along with filled up 'Form - I', Form - I (A) and Conceptual plan in the prescribed format was submitted to SEIAA, Bihar on 06th February, 2020 for obtaining Environmental Clearance (EC).

Earlier in the meeting dated 03rd and 27th and 28th February, 2020 the Project Proponent had requested that since there are some deficiencies in the report submitted by them such as Form - I (A), conceptual plan, etc., they wanted to improve / revise the same.

The project proponent expressed their inability to attend the SEAC meeting due to COVID-19 pandemic lockdown and requested to attend the next SEAC meeting (Ref. No. SEAC/EC/20 dated- 13.05.2020). The Committee finds and notes that the above-mentioned excuse of pandemic is not tenable and justified as the video conferencing facilities may have been utilized. As such as the Project Proponent is granted leave as a last chance.

18. "RD Projects" (Proposed Group Housing Project - Phase I) at Mauza:- Jamsaut, Tehsil:- Danapur, District:- Patna, State:- Bihar, (Developer:- M/s R. D. Eco Developers Pvt. Ltd.) Total Plot Area : 28,119 m² (Phase I : 9998.2 m² & Phase II : 18150.8 m²), Total Built-up Area:- 42,762.48 m², (File No. - SIA/8(a)/993/2020), **Online proposal No.: - SAI/BR/MIS/146832/2020).**

Proponent:- M/s R. D. Eco Developers Private Limited.

Consultant:- PARAMARSH (Servicing Environment and Development).

Application along with filled up 'Form - I', Form - I (A) and Conceptual plan in the prescribed format was submitted to SEIAA, Bihar on 05th May, 2020 for obtaining Environmental Clearance (EC).

The Proponent and Consultant presented the proposal before the Committee. During appraisal of proposal, Committee observed that the project is divided in two phases, but conceptual plan and request for Environmental Clearance is only for phase I, (the area identified for Phase II has just been shown / indicated). The Project Proponent has declared that before commencing work in Phase II necessary clearances (EC etc.) will be sought separately. The Committee recommends Environmental Clearance only for Phase I (i.e 42,762.48 m²) as Annexure-I.

20. Proposed expansion project of Distillery from 60 KLD to 80 KLD, expansion of Sugar Mill from 7,500 to 9,000 TCD, along with co-generation power plant from 5.10 MW to 10.25 MW at Village:- Narkatiyaganj, P.O.- Narkatiyaganj, Tehsil:- Narkatiyaganj, District:- West Champaran, Bihar by Magadh Sugar and Energy Limited Unit : New Swadeshi Sugar Mills (**File No. - SIA/5(g)5(j)/981/20. Online Proposal No.:- SIA/BR/IND2/48586/2006**).

Proponent:- M/s Magadh Sugar and Energy Limited Unit : New Swadeshi Sugar Mills.

Consultant:- PARAMARSH (Servicing Environment and Development).

Application along with filled up 'Form - I', Pre-feasibility Report and Environment Management Plan in the prescribed format was submitted to MoEF&CC on 19th March, 2019 for obtaining Terms of Reference (ToR). MoEF&CC issued ToR Vide No. - J-11011/373/2006-IA-II (I), dated 25.04.2019 and public hearing for the proposed project was conducted by Bihar State Pollution Control Board on 18.11.2019. Final EIA report was submitted by Project Proponent in the prescribed format to SEIAA, Bihar on 10.01.2020 for obtaining Environmental Clearance (EC).

Earlier in the meeting dated 28th January, 2020, the Committee had directed the Project Proponent to submit documents as mentioned in the proceedings of that meeting. The Proponent and Consultant presented the proposal and compliance report(s) before the Committee. The Committee observed and found them inadequate / not satisfactory, especially considering the fact that the Project Proponent has a very poor record of

compliance leading to repeated closure notices issued by CPCB etc. As such the Project Proponent is directed to:-

1. Submit Revised Form-2.
2. Upload latest monitoring (inspection) report of the Regional office of MoEF&CC, GoI and SPCB and compliance reports submitted by Project Proponent.
3. Include the carrying capacity of approach road, and submit specific traffic study report.
4. Undertake a detailed study on effect of increase in traffic load due to proposed expansion on ambient air quality and provide existing & predicted GLC concentration of various air pollutants by using a suitable latest air model specific for line source.

21. Majhaulia Jayshree Sugar Industries Private Limited at Village:- Majhaulia, Tehsil:- Majhaulia, District:- West Champaran, State:- Bihar, Total Capacity - 45 KLD (distillery) and 2 MW co-generation power plant, Area:- 4.06 Ha (**File No. - SIA/5(g)/985/20**).
Online Proposal No.:- SIA/BR/IND2/48192/2019).

Proponent:- M/s Majhaulia Jayshree Sugar Industries Private Limited.

Consultant:- PARAMARSH (Servicing Environment and Development).

Application along with filled up 'Form - I' and Prefeasibility report in the prescribed format was submitted to SEIAA, Bihar on 24th January, 2020 for obtaining Terms of Reference (ToR).

Earlier in the meeting dated 27th and 28th February, 2020, the Committee had directed the Project Proponent to submit documents as mentioned in the proceedings of that meeting. The Project Proponent has complied. The Committee considered the compliance as submitted by the Project Proponent and found that the report regarding none increment of pollution load etc. was acceptable and the claim of Project Proponent to be covered under the provisions contained in OM No. F.No. 22-33/2019-IA.III dated 05.11.2019 is maintainable. It was, therefore decided to recommend the proposal for grant of Environmental Clearance as per conditions given in Annexure - II.

A

22. "Balmukund Concast Private Limited" (Expansion Project), Mauja:- Mahadeopur Phulari, Village:- Mahadeopur Phulari, Tehsil:- Bihta, District:- Patna, State:- Bihar (**File No. - SIA/3(a)/220/16/II/2020**), **Online Proposal No.:- SIA/BR/IND/50832/2020**).
Proponent:- M/s Balmukund Concast Private Limited.

Application along with filled up 'Form - I' and Prefeasibility report in the prescribed format was submitted to SEIAA, Bihar on 19th March, 2020 for obtaining Terms of Reference (ToR).

The Proponent and Consultant presented the proposal before the committee. During presentation, the Project Proponent and consultant requested the Committee for permission to use existing baseline data, (collected and used while preparing the EIA report of a nearby unit viz M/s – Balajee Mini Steel and rerolling Private Limited; during March to May 2017). The Project Proponent informed that soon after applying online they had started monitoring but because of the COVID – 19 lockdown they had to discontinue it and in such special circumstances they may please be allowed to use the above monitoring data. The Committee decided to allow the Project Proponent to use the current monitoring data while supplementing the remaining data with old baseline data collected by the project proponent so far as there are no inconsistencies and as stipulated by MoEf&CC, Govt. of India OM no. J-11013/41/2006-IA-II(I) (Part) dated 29th August 2017 . The EIA report must also contain the existing and predicted GLC concentration of air pollutants by considering all other point sources of pollution viz. industries in the vicinity, to show cumulative effect on Ambient Air Quality.

Agenda Item No.- 12, 14, 15, 16, 19 (Ref. No. 98, dated. 08.05.2020) and 3, (Ref. No. 99, dated. 11.05.2020)

12. Proposed Group Housing "Rose Valley" at Plot No.-370, 371, 372 and 380, Mauza- Nasirpur Tajpur, Thana- Didarganj, Tehsil:- Sampatchak, District- Patna, State:- Bihar, Total Plot Area :- 9,237.18 m², Total Built-up Area:- 38,400 m², (**File No. - SIA/8(a)/698/19**), **Online Proposal No. : - SIA/BR/MIS/121345/2019**).
Proponent :- M/s Ashirwad Engicon Private Limited.

Consultant :- Earthood Servicing Private Limited, Haryana.

Application along with filled up 'Form - I', Form - I (A) and Conceptual Plan in the prescribed format was submitted to SEIAA, Bihar on 13th December, 2019 for obtaining Environmental Clearance (EC).

Earlier in the meeting dated 28th January, 2020, the Committee had directed the Project Proponent to submit revised plan and documents as mentioned in the proceedings of that meeting. The Project Proponent has complied. The Project Proponent has also submitted some amendment in the Conceptual Plan thus increasing green area and reducing the Built-up Area, apart from a few other things. The Committee considered the above mentioned proposal and decided to recommend Environmental Clearance as Annexure – III.

14. Government Medical College and Hospital at Village:- Punaura, Tehsil:- Dumra, District:- Sitamarhi, Bihar, Total Plot Area - 1,01,170.25 m², Total Built-up Area - 1,12,618.61 m² (File No. - SIA/8(a)/697/19). Online proposal No.:- SIA/BR/MIS/125023/2019).

Proponent:- Department of Health, Govt. of Bihar.

Consultant:- Earthood Servicing Private Limited.

Application along with filled up 'Form - I', Form - I (A) and Conceptual Plan in the prescribed format was submitted to SEIAA, Bihar on 09th December, 2019 for obtaining Environmental Clearance (EC).

Earlier in the meeting dated 3rd and 4th January, 2020, the Committee had directed the Project Proponent to submit documents as mentioned in the proceedings of that meeting. The Project Proponent has complied. The Committee considered the compliance as submitted by the Project Proponent and decided to recommend the proposal for grant of Environmental Clearance as per conditions given in Annexure - IV

15. Proposed Group Housing "IOB Galaxy Building" Mauza - Painal, Tehsil:- Bihta, District- Patna, State:- Bihar, Total Plot Area - 39,141.90 m², Total Built-up Area:-

1,46,136.87 m² (File No. - SIA/8(a)/699/19, Online Proposal No.:- SIA/BR/MIS/127441/2019).

Proponent :- M/s Ashirwad Engicon Private Limited.

Consultant :- Earthood Servicing Private Limited.

Application along with filled up 'Form - I', Form - I (A) and Conceptual Plan in the prescribed format was submitted to SEIAA, Bihar on 13th December, 2019 for obtaining Environmental Clearance (EC).

Earlier in the meeting dated 03rd and 04th January, 2020, the Committee had directed the Project Proponent to submit documents as mentioned in the proceedings of that meeting. The Project Proponent has complied. The Project Proponent has also submitted some amendment in the Site Plan, apart from few other things. The Committee considered the above mentioned proposal and decided to recommend Environmental Clearance as Annexure - V.

16. Residential Building Project "SKK Valencia", Village:- Lakni Bigha, Tehsil:- Dinapur-cum-Khagaul, District- Patna, State:- Bihar, Total Plot Area - 9,918.40 m², Total Built-up Area - 28,825.22 m² (File No. - SIA/8(a)/992/2020), Online Proposal No.:- SIA/BR/MIS/132872/2019).

Proponent:- M/s Shanti Krishna Kanhaiya Constructions and Developers Private Limited.

Consultant:- Amaltas Enviro Industrial Consultant LLP.

Application along with filled up 'Form - I', Form - I (A) and Conceptual Plan in the prescribed format was submitted to SEIAA, Bihar on 18th February, 2020 for obtaining Environmental Clearance (EC).

The Proponent and Consultant presented the proposal. The Committee sought information / reports as under:-

1. Select suitable local plant species for green belt area development (for residential buildings).
2. Relocate the solid waste segregation and collection facilities away from utility area i.e. staircase / lift and submit revised plan and make provision to avoid mixing of dry and wet garbage.

3. Upload proper google earth, KML file to show the boundary of proposed project as the proposed construction area does not appear to be in accordance with approved master plan of Patna..
4. No. of ECS should be increased to meet MoEF&CC norms.
5. Undertake a traffic survey on approach road and take measures so that impact of increase in traffic due to upcoming project can be minimized.

19. Proposed Bridge Construction Project of New 4- Lane Bridge (Parallel to the Existing Mahatma Gandhi Setu) with its approaches from km 0/000 to km 14/500 across river Ganga on NH - 19 at Patna in the State of Bihar by Ministry of Road Transport & Highways, Mahatma Gandhi Setu Division, Raja Ghat, CRPF camp, Patna, State- Bihar, Total Built-up area- 1,49,300 m², Area of Viaduct - 28,170 m², Area of Bridge - 1,21,131 m², (File No.:- SIA/8(a)/694/19), Online Proposal No.:- SIA./BR/MIS/96989/2019).

Proponent:- Office of the Executive Engineer.

Consultant:- Sri Sai Manasa Nature Tech Private Limited.

Application along with filled up 'Form - I', Form - I (A) and Conceptual plan in the prescribed format was submitted to SEIAA, Bihar on 15th October, 2019 for obtaining Environmental Clearance (EC).

Earlier in the meeting dated 03rd and 04th January, 2020, the Committee had directed the Project Proponent to submit documents / reports as mentioned in the proceedings of that meeting. The Proponent and Consultant presented the proposal before the Committee. The Committee observed that the reports submitted by the Project Proponent are inadequate and perfunctory. It was also observed that the proposal contained several proposed structures / constructions which are associated with instant project and are necessary component of whole project spanning over the length of 14.5 Km. The government officials associated with the project attending the meeting in person informed that the instant proposal was submitted only for viaduct (bridge over river Ganga) and there are many other constructions including RoB etc. which have not been included. The officials informed that they had impression that only construction of bridge over river Ganga required Environmental Clearance. The Consultant conducting via video conferencing however insisted that the proposal did not include any other structure

thus creating confusion. The Committee while appreciating the attitude of attending government officials in speaking truth has taken serious exception to Consultant (Sri Sai Manasa Nature Tech Private Limited) and warns them against such misconstrued in future.

The Proposal was considered in the light of the famous Signature Bridge case (Original application No. 137 of 2014) as decided by the Hon'ble NGT, Principal Bench, New Delhi.

At the outset, going by "the letter of judgement" the proposal being for less than 1,50,000 m², does not require Environmental Clearance, but the "spirit and ratio of judgement" is that if such a huge structure is proposed over/in an ecologically sensitive area, it must have the EIA study done. The instant proposal does fall in such a category on account of inter alia, following reasons:-

- a) It is located just on the confluence of two ecologically sensitive rivers, the Ganga and Gandak, habitat of endangered Gangetic dolphin, and Gharial etc.;
- b) Proposed Bridge runs just parallel to existing Mahatama Gandhi Setu utilizing the ROW of that structure and its approach roads. It is therefore, imperative that the Environmental Impact caused both independently and cumulatively is studied so as to ascertain ecological sustainability and to suggest mitigation measures;
- c) Total Built-up area of construction seems to be underestimated as the officials informed that some structures (though a part of the project, e.g.- ROB etc.) have not been included in Built-up area calculations;
- d) The instant proposed structure cannot be treated as stand alone structure.

Under the circumstances noted above the proposal cannot be considered for Environmental Clearance for want of a proper EIA study & report.

In the light of above a fresh application {under category 8(b)} needs to be submitted by the project proponent for grant of ToR.

23. Proposed expansion project of Distillery from 5,000 TCD to 6,500 TCD, along with co-generation power plant of 12.50 MW at Village:- Hasanpur, Tehsil:- Rosera, District:-

Samastipur, Bihar by Magadh Sugar and Energy Limited Unit : Hasanpur Sugar Mills, Total Plant Area:- 44.93 Acres (**File No. - SIA/5(j)/994/2020**). **Online Proposal No.:- SIA/BR/IND2/52196/2020**).

Proponent:- M/s Magadh Sugar and Energy Limited Unit : Hasanpur Sugar Mills.

Consultant:- Chandigarh pollution Testing Laboratory-EIA Division

Application along with filled up 'Form - I' and Prefeasibility report in the prescribed format was submitted to SEIAA, Bihar on 08th May, 2020 for obtaining Terms of Reference (ToR).

The Proponent and Consultant presented the proposal before the Committee and requested that they have yet not started baseline data collection for environmental parameters in view of nationwide lockdown due to COVID - 19 National lockdown) and hence be allowed to collecte baseline data from May 2020 onwards. The request was not accepted by the members and directed to start collect baseline data as per procedure laid in the EIA Notification, 2006 to prepare EIA report.

Agenda Item No.- 02, 04, and 11 (Ref. No. 98, dated. 08.05.2020)

Patna District Sand Mining Project

2. Sand Mining Project on Ganga River at Diara Malahi Ghat, of District- Patna, Area - 24.90 Ha (**File No. - SIA/1(a)/647/19**), **Online Proposal No.:- SIA/BR/MIN/31544/2019**).

Proponent:- M/s Broad-son Commodities Private Limited.

Consultant:- Ascenso Enviro Private Limited

Application along with filled up 'Form - I' and Prefeasibility report in the prescribed format was submitted to SEIAA, Bihar on 21st February, 2019 for obtaining Terms of Reference (ToR). SEIAA, Bihar issued ToR Vide F. No. SIA/1(a)/647/19, dated 26.04.2019 and public hearing for the proposed project was conducted by Bihar State Pollution Control Board on 20.12.2019. Final EIA report was submitted by Project Proponent in the prescribed format to SEIAA, Bihar on 18.05.2020 for obtaining Environmental Clearance (EC).

4. Sand Mining Project on Ganga River at Ramnagar Karari Kachhar Ghat, of District- Patna, Area - 23.50 Ha (**File No. - SIA/1(a)/641/19**). **Online Proposal No.:- SIA/BR/MIN/31556/2019**).

Proponent:- M/s Broad-son Commodities Private Limited.

Consultant:- Ascenso Enviro Private Limited.

Application along with filled up 'Form - I' and Prefeasibility report in the prescribed format was submitted to SEIAA, Bihar on 21st February, 2019 for obtaining Terms of Reference (ToR). SEIAA, Bihar issued ToR Vide F. No. SIA/1(a)/641/19, dated 26.04.2019 and public hearing for the proposed project was conducted by Bihar State Pollution Control Board on 19.12.2019. Final EIA report was submitted by Project Proponent in the prescribed format to SEIAA, Bihar on 18.05.2020 for obtaining Environmental Clearance (EC).

11. Sand Mining Project on Ganga River at Rupas Ghat, of District- Patna, Area - 14.80 Ha (**File No. - SIA/1(a)/627/19**). **Online Proposal No.:- SIA/BR/MIN/51277/2019**).

Proponent:- M/s Broad-son Commodities Private Limited..

Consultant:- Ascenso Enviro Private Limited.

Application along with filled up 'Form - I' and Prefeasibility report in the prescribed format was submitted to SEIAA, Bihar on 21st February, 2019 for obtaining Terms of Reference (ToR). SEIAA, Bihar issued ToR Vide F. No. SIA/1(a)/627/19, dated 26.04.2019 and public hearing for the proposed project was conducted by Bihar State Pollution Control Board on 19.12.2019. Final EIA report was submitted by Project Proponent in the prescribed format to SEIAA, Bihar on 18.05.2020 for obtaining Environmental Clearance (EC).

The above mentioned Sand Mining proposals (Agenda Sl. No. 02, 04, 11) were appraised (as per date set forth in the notice of meeting) by the Committee which considered final EIAs submitted by the Project Proponent. The Committee observed that all the sand ghats are located on Ganga River in Patna district. It was decided to recommend the proposals for grant of Environmental Clearance as per standard EC



conditions recommended by the MoEF&CC, Govt of India (as Annexure VI) along with additional specific conditions as mentioned below:

- a) The EC shall be valid upto 31.10.2020 or expiry of mine leases whichever is earlier.
- b) The Project Proponent shall submit copy of mining plan valid upto 31.10.2020 or lease period whichever is earlier to SEIAA before starting any mining activity.
- c) Movement of empty and loaded vehicles for the transportation of mined out material from the concerned sand ghats shall be done only after sunset and before sunrise.
- d) The individual sand ghats miner will take appropriate measures to avoid parking of empty / loaded vehicles on nearest highway / public roads to avoid traffic congestion.
- e) The project proponent will adhere to provisions of NMCG Authority Notification, 2016 to be read with 2nd amendment vide S.O. 3163 (E) dated 02.09.2019 and S.O. 3163 (E) dated 14th September 2019.
- f) Project proponent and the Department of Mines, Govt. of Bihar will adhere to all applicable provisions of Sustainable Sand Mining Management Guidelines, 2016 (SSMG-2016) and Enforcement & Monitoring Guidelines for Sand Enforcement & Monitoring Guidelines for Sand Mining, 2020 (EMGSM-2020) issued by the MoEF&CC, Govt. of India.
- g) The project proponent and the Department of Mines, Govt. of Bihar will ensure that the mining capacity / day and deployment of number of trucks / day to evacuate mined material i.e. sand is limited to the figures as projected in Chapter - 4 (Traffic Analysis) given in the final EIA report of respective sand Ghats.
- h) EC conditions which are in the interest of public at large must be displayed throughout the project life at prominent places which can be easily visible to public mentioning the address and contact number of authority to whom violation of EC conditions can be reported.



Agenda Item No.- 06, 08, 09 and 10 (Ref. No. 98, dated 08.05.2020)

Arwal District Sand Mining Project

6. Sand Mining Project on Son River at Baidrabad Ghat, of District- Arwal, Area - 24.80 Ha (File No. - SIA/1(a)/675/19), Online Proposal No.:- SIA/BR/MIN/32551/2019).

Proponent:- M/s Mor-Mukut Marketing Private Limited.

Consultant:- Oceao - Enviro Management Solutions (India) Private Limited.

Application along with filled up 'Form - I' and Prefeasibility report in the prescribed format was submitted to SEIAA, Bihar on 13th March, 2019 for obtaining Terms of Reference (ToR). SEIAA, Bihar issued ToR Vide F. No. SIA/1(a)/675/19, dated 17.05.2019 and public hearing for the proposed project was conducted by Bihar State Pollution Control Board on 11.12.2019. Final EIA report was submitted by Project Proponent in the prescribed format to SEIAA, Bihar on 18.05.2020 for obtaining Environmental Clearance (EC).

8. Sand Mining Project on Son River at Sonbarsa Makbulpur Alauddin Ghat, of District- Arwal, Area - 6.0 Ha (File No. - SIA/1(a)/674/19), Online Proposal No.:- SIA/BR/MIN/32593/2019).

Proponent:- M/s Mor-Mukut Marketing Private Limited.

Consultant:- Oceao - Enviro Management Solutions (India) Private Limited.

Application along with filled up 'Form - I' and Prefeasibility report in the prescribed format was submitted to SEIAA, Bihar on 13th March, 2019 for obtaining Terms of Reference (ToR). SEIAA, Bihar issued ToR Vide F. No. SIA/1(a)/674/19, dated 17.05.2019 and public hearing for the proposed project was conducted by Bihar State Pollution Control Board on 11.12.2019. Final EIA report was submitted by Project Proponent in the prescribed format to SEIAA, Bihar on 18.05.2020 for obtaining Environmental Clearance (EC).

9. Sand Mining Project on Son River at Aslampur Dullah Ghat, of District- Arwal, Area - 15.0 Ha (File No. - SIA/1(a)/677/19), Online Proposal No.:- SIA/BR/MIN/32620/2019).

Proponent:- M/s Mor-Mukut Marketing Private Limited.

Consultant:- Oceao - Enviro Management Solutions (India) Private Limited..

Application along with filled up 'Form - I' and Prefeasibility report in the prescribed format was submitted to SEIAA, Bihar on 13th March, 2019 for obtaining Terms of Reference (ToR). SEIAA, Bihar issued ToR Vide F. No. SIA/1(a)/677/19, dated 17.05.2019 and public hearing for the proposed project was conducted by Bihar State Pollution Control Board on 11.12.2019. Final EIA report was submitted by Project Proponent in the prescribed format to SEIAA, Bihar on 18.05.2020 for obtaining Environmental Clearance (EC).

10. Sand Mining Project on Son River at Chhapra 04 Ghat, of District- Arwal, Area - 7.0 Ha (File No. - SIA/1(a)/678/19). Online Proposal No.:- SIA/BR/MIN/32633/2019).

Proponent:- M/s Mor-Mukut Marketing Private Limited.

Consultant:- Oceao - Enviro Management Solutions (India) Private Limited..

Application along with filled up 'Form - I' and Prefeasibility report in the prescribed format was submitted to SEIAA, Bihar on 13th March, 2019 for obtaining Terms of Reference (ToR). SEIAA, Bihar issued ToR Vide F. No. SIA/1(a)/678/19, dated 17.05.2019 and public hearing for the proposed project was conducted by Bihar State Pollution Control Board on 11.12.2019. Final EIA report was submitted by Project Proponent in the prescribed format to SEIAA, Bihar on 18.05.2020 for obtaining Environmental Clearance (EC).

The above mentioned Sand Mining proposals (Agenda Sl. No. 06 ,08, 09, 10) were appraised (as per date set forth in the notice of meeting) by the Committee which considered final EIAs submitted by the Project Proponent. The Committee observed that all the sand ghats are located on Son River in Arwal district. It was decided to recommend the proposals for grant of Environmental Clearance as per standard EC

conditions recommended by the MoEF&CC, Govt of India (as Annexure VI) along with additional specific conditions as mentioned below:

- a) The EC shall be valid upto 31.10.2020 or expiry of mine leases whichever is earlier.
- b) The Project Proponent shall submit copy of mining plan valid upto 31.10.2020 or lease period whichever is earlier to SEIAA before starting any mining activity.
- c) Movement of empty and loaded vehicles for the transportation of mined out material from the concerned sand ghats shall be done only after sunset and before sunrise.
- d) The individual sand ghats miner will take appropriate measures to avoid parking of empty / loaded vehicles on nearest highway / public roads to avoid traffic congestion.
- e) The project proponent will adhere to provisions of NMCG Authority Notification, 2016 to be read with 2nd amendment vide S.O. 3163 (E) dated 02.09.2019 and S.O. 3163 (E) dated 14th September 2019 (if applicable).
- f) Project proponent and the Department of Mines, Govt. of Bihar will adhere to all applicable provisions of Sustainable Sand Mining Management Guidelines, 2016 (SSMG-2016) and Enforcement & Monitoring Guidelines for Sand Enforcement & Monitoring Guidelines for Sand Mining, 2020 (EMGSM-2020) issued by the MoEF&CC, Govt. of India.
- g) The project proponent and the Department of Mines, Govt. of Bihar will ensure that the mining capacity/day and deployment of number of trucks/day to evacuate mined material i.e. sand is limited to the figures as projected in Chapter - 4 (Traffic Analysis) given in the final EIA report of respective sand Ghats.
- h) EC conditions which are in the interest of public at large must be displayed throughout the project life at prominent places which can be easily visible to public mentioning the address and contact number of authority to whom violation of EC conditions can be reported.



Agenda Item No.- 03, 05, and 07 (Ref. No. 98, dated. 08.05.2020)

3. Sand Mining Project on Ganga River at Gosai Tola Ghat, of District- Patna, Area - 18 Ha (File No. - SIA/1(a)/628/19), Online Proposal No.:- SIA/BR/MIN/31554/2019).

Proponent:- M/s Broad-son Commodities Private Limited.

Consultant:- Ascenso Enviro Private Limited.

Application along with filled up 'Form - I' and Prefeasibility report in the prescribed format was submitted to SEIAA, Bihar on 21st February, 2019 for obtaining Terms of Reference (ToR). SEIAA, Bihar issued ToR Vide F. No. SIA/1(a)/628/19, dated 26.04.2019 and public hearing for the proposed project was conducted by Bihar State Pollution Control Board on 19.12.2019. Final EIA report was submitted by Project Proponent in the prescribed format to SEIAA, Bihar on 18.05.2020 for obtaining Environmental Clearance (EC).

5. Sand Mining Project on Son River at Madan Singh Ka Bigha Ghat 1 & 2 (Cluster), of District- Arwal, Area - 24.80 Ha (File No. - SIA/1(a)/679/19). Online Proposal No.:- SIA/BR/MIN/32540/2019).

Proponent:- M/s Mor-Mukut Marketing Private Limited.

Consultant:- Oceao - Enviro Management Solutions (India) Private Limited.

Application along with filled up 'Form - I' and Prefeasibility report in the prescribed format was submitted to SEIAA, Bihar on 13th March, 2019 for obtaining Terms of Reference (ToR). SEIAA, Bihar issued ToR Vide F. No. SIA/1(a)/679/19, dated 17.05.2019 and public hearing for the proposed project was conducted by Bihar State Pollution Control Board on 11.12.2019. Final EIA report was submitted by Project Proponent in the prescribed format to SEIAA, Bihar on 18.05.2020 for obtaining Environmental Clearance (EC).

7. Sand Mining Project on Son River at Shahjahanbad Ghat, of District- Arwal, Area - 24.0 Ha (File No. - SIA/1(a)/676/19), Online Proposal No.:- SIA/BR/MIN/32566/2019).

Proponent:- M/s Mor-Mukut Marketing Private Limited.

Consultant:- Oceao - Enviro Management Solutions (India) Private Limited.

Application along with filled up 'Form - I' and Prefeasibility report in the prescribed format was submitted to SEIAA, Bihar on 13th March, 2019 for obtaining Terms of Reference (ToR). SEIAA, Bihar issued ToR Vide F. No. SIA/1(a)/676/19, dated 17.05.2019 and public hearing for the proposed project was conducted by Bihar State Pollution Control Board on 11.12.2019. Final EIA report was submitted by Project Proponent in the prescribed format to SEIAA, Bihar on 18.05.2020 for obtaining Environmental Clearance (EC).

The respective Project Proponents of above mentioned proposals have submitted request to the effect of withdrawing the proposals because of the instant un-minable condition of the concern ghats, which is accepted.



Sd/-
(Dr. Shardendu)
(Member, SEAC)

Sd/-
(Dr. Rakesh Kumar Singh)
(Member, SEAC)

Sd/-
(Dr. Amar Nath Verma)
(Member, SEAC)

Sd/-
(Dr. Samir Kumar Sinha)
(Member, SEAC)

Sd/-
(Dr. Birendra Prasad)
(Member, SEAC)

Sd/-
(Dilip Kumar Paul)
(Member, SEAC)

Sd/-
(Vijay Kumar Sinha)
(Member, SEAC)



(Alok Kumar)
Member Secretary, SEAC



(Murarijee Mishra)
Chairman, SEAC

Annexure - I (RD Heights EC)

I. Statutory compliance:

1. The project proponent shall obtain all necessary clearance / permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
2. The Project proponent will obtain CTE from the BSPCB before preparing site for construction if applicable and CTO before giving occupancy.
3. The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc. as per National Building Code including protection measures from lightening etc.
4. All directions of the Airport Authority, Director of Explosives and Fire Department etc. shall be complied with.
5. The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board/ Committee.
6. The project proponent shall obtain the necessary permission for drawl of ground water / surface water required for the project from the competent authority.
7. A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project should be obtained.
8. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department shall be obtained, as applicable, by project proponents from the respective competent authorities.
9. The provisions of the Solid Waste (Management) Rules, 2016, e-Waste (Management) Rules, 2016, and the Plastics Waste (Management) Rules, 2016 shall be followed.
10. The project proponent shall follow the ECBC / ECBC-R prescribed by Bureau of Energy Efficiency, Ministry of Power strictly.

11. The facilities provided for collection, segregation, handling, on site storage & processing of solid waste such as chute system for multi-storey buildings, wet & dry bins, collection center & mechanical composter etc. shall be properly maintained. The collected solid waste shall be segregated at site. The recyclable solid waste shall be sold out to the authorized vendors for which a written tie-up must be done with the authorized recyclers.
12. Hazardous waste / E-waste should be disposed off as per Rules applicable and with the necessary approval of the Bihar State Pollution Control Board.
13. Solar power plant or other solar energy related equipment's shall be operated and maintained properly.
14. Provisions shall be made for the integration of solar water heating system.
15. EC conditions applicable for construction and operation phase which are in the interest of public at large must be displayed at prominent place which can be easily accessible to public along with address and contact number of authority to whom violation of EC conditions can be reported.

Project site shall be adequately barricaded before the start of construction activity by erecting suitable windscreen upto. 1/3rd of the building height or 10 meters height whichever is more to prevent dispersion of particulate matter from the construction site.

16. Free Parking facility for visitors shall be provided within the project premises to avoid congestions on public road.

II. Air quality monitoring and preservation

1. Notification GSR 94(E) dated 25.01.2018 of MoEF&CC regarding Mandatory Implementation of Dust Mitigation Measures for Construction and Demolition Activities for projects requiring Environmental Clearance shall be complied with.
2. A management plan shall be drawn up and implemented to contain the current exceedance in ambient air quality at the site.



3. Diesel power generating sets proposed as source of backup power should be of enclosed type and conform to rules made under the Environment (Protection) Act, 1986. The height of stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets. Diesel to be used should have lower sulphur content. The location of the DG sets may be decided with in consultation with State Pollution Control Board.
4. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. Plastic / tarpaulin sheet covers shall be provided for vehicles bringing all loose construction material e.g sand, cement, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site.
5. All loose construction material e.g sand, soil, cement, stored on site shall be covered adequately so as to prevent dust pollution.
6. Wet jet shall be provided for grinding and stone cutting.
7. Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.
8. All construction and demolition debris shall be stored at the site (and not dumped on the roads or open spaces outside) before they are properly disposed. All demolition and construction waste shall be managed as per the provisions of the Construction and Demolition Waste Rules 2016.
9. The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
10. The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
11. For indoor air quality the ventilation provisions as per National Building Code of India.



III. Water quality monitoring and preservation:

1. The natural drain system should be maintained for ensuring unrestricted flow of water. No construction shall be allowed to obstruct the natural drainage through the site, on wetland and water bodies. Check dams, bio-swales, landscape, and other sustainable urban drainage systems (SUDS) are allowed for maintaining the drainage pattern and to harvest rain water.
2. Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.
3. Total fresh water use shall not exceed the proposed requirement as provided in the project details.
4. The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the, SEIAA/ Regional Office, MoEF&CC along with six monthly Monitoring reports.
5. A certificate shall be obtained from the local body supplying water, specifying the total annual water availability with the local authority, the quantity of water already committed, the quantity of water allotted to the project under consideration and the balance water available. This should be specified separately for ground water and surface water sources, ensuring that there is no impact on other users.
6. At least 20% of the open spaces as required by the local building bye-laws shall be pervious. Use of Grass pavers, paver blocks with at least 50% opening, landscape etc. would be considered as pervious surface.
7. Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc. and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.



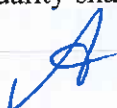
8. Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc.) for water conservation shall be incorporated in the building plan.
9. Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done.
10. Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
11. The local bye-law provisions on rain water harvesting should be followed. If local byelaw provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model Building Byelaws, 2016. Rain water harvesting recharge pits/storage tanks shall be provided for ground water recharging as per the CGWB norms.
12. A rain water harvesting plan needs to be designed where the recharge bores of minimum one recharge bore per 5,000 square meters of built up area and storage capacity of minimum one day of total fresh water requirement shall be provided. In areas where ground water recharge is not feasible, the rain water should be harvested and stored for reuse. The ground water shall not be withdrawn without approval from the Competent Authority.
13. All recharge should be limited to shallow aquifer.
14. No ground water shall be used during construction phase of the project.
15. Any ground water dewatering should be properly managed and shall conform to the approvals and the guidelines of the CGWA in the matter. Formal approval shall be taken from the CGWA for any ground water abstraction or dewatering.
16. The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.



17. Sewage shall be treated in the STP with tertiary treatment. The treated effluent from STP shall be recycled/re-used for flushing, AC make up water and gardening. As proposed, no treated water shall be disposed in to municipal drain.
18. No sewage or untreated effluent water would be discharged through storm water drains.
19. Onsite sewage treatment of capacity of treating 100% waste water to be installed. The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Treated waste water shall be reused on site for landscape, flushing, cooling tower, and other end-uses. Excess treated water shall be discharged as per statutory norms notified by Ministry of Environment, Forest and Climate Change. Natural treatment systems shall be promoted.
20. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
21. Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
22. Separate drainage system shall be developed for storm water so that end point discharge to nearest nallah / river is ensured to avoid water logging without any increase in the pollution load in receiving system.
23. Possibilities needs to be explored to use STP waste water during construction phase. Fresh water shall be used only after exhausting the possibility of obtaining STP waste water located in municipal jurisdiction

IV. Noise monitoring and prevention:

1. Ambient noise levels shall conform to residential area silence zone both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction



phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.

2. Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.
3. Acoustic enclosures for DG sets, noise barriers for ground-run bays, ear plugs for operating personnel shall be implemented as mitigation measures for noise impact due to ground sources.

V. Energy Conservation measures:

1. Compliance with the Energy Conservation Building Code (ECBC) of Bureau of Energy Efficiency shall be ensured. Buildings in the States which have notified their own ECBC, shall comply with the State ECBC.
2. Outdoor and common area lighting shall be LED.
3. Concept of passive solar design that minimize energy consumption in buildings by using design elements, such as building orientation, landscaping, efficient building envelope, appropriate fenestration, increased day lighting design and thermal mass etc. shall be incorporated in the building design. Wall, window, and roof u-values shall be as per ECBC specifications.
4. Energy conservation measures like installation of CFLs / LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning.
5. Solar, wind or other Renewable Energy shall be installed to meet electricity generation equivalent to 1% of the demand load or as per the state level/ local building bye-laws requirement, whichever is higher.
6. Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. Solar water heating shall be provided to meet 20% of the hot water demand of the commercial and institutional



building or as per the requirement of the local building bye-laws, whichever is higher. Residential buildings are also recommended to meet its hot water demand from solar water heaters, as far as possible.

VI. Waste Management:

1. A certificate from the competent authority handling municipal solid wastes, indicating the existing civic capacities of handling and their adequacy to cater to the M.S.W. generated from project shall be obtained.
2. Proper composting / vermi-composting of municipal and biodegradable solid wastes shall be carried out. All municipal solid wastes shall be segregated, collected, transported, treated and disposed as per provisions of the Municipal Solid Wastes (Management and Handling) Rules, 2000 (As amended).
3. All the top soil excavated during construction activities shall be stored for use in horticulture/landscape development within the project site.
4. Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
5. Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials.
6. Organic waste compost / Vermiculture pit / Organic Waste Converter within the premises with a minimum capacity of 0.3 kg /person/day must be installed.
7. All non-biodegradable waste shall be handed over to authorized recyclers for which a written tie up must be done with the authorized recyclers.
8. Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.

9. Use of environment friendly materials in bricks, blocks and other construction materials, shall be required for at least 20% of the construction material quantity. These include Fly Ash bricks, hollow bricks, AACs, Fly Ash Lime Gypsum blocks, Compressed earth blocks, and other environment friendly materials.
10. Fly ash should be used as building material in the construction as per the provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016, Ready mixed concrete must be used in building construction.
11. Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Rules, 2016.
12. Used CFLs and TFLs should be properly collected and disposed off / sent for recycling as per the prevailing guidelines / rules of the regulatory authority to avoid mercury contamination.

VII. Green Cover:

1. No tree should be felled unless exigencies demand. Wherever absolutely necessary, tree felling shall be done with prior permission from the concerned regulatory authority. Old trees should be retained based on girth and age regulations as may be prescribed by the Forest Department. Plantations to be ensured in the ratio of species cut to species planted.
2. 3,467.5 m² of the plot area shall be kept under green belt cover within the project site.
3. All the affords shall be made not to fell any tree however if any tree need to be removed necessarily a prior permission from concerned local Authority shall be obtained. In case of felling plantations to be insured in the ratio of species cut / removed to species planted. Area for green belt development shall be provided as per the details provided in the Project document.
4. Topsoil should be stripped to a depth of 20 cm from the areas proposed for buildings, roads, paved areas, and external services. It should be stockpiled appropriately in designated areas and reapplied during plantation of the proposed vegetation on site.

VIII. Transport:

1. A comprehensive mobility plan, as per MoUD best practices guidelines (URDPFI), shall be prepared to include motorized, non-motorized, public, and private networks. Road should be designed with due consideration for environment, and safety of users. The road system can be designed with these basic criteria.
 - a. Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
 - b. Traffic calming measures.
 - c. Proper design of entry and exit points.
 - d. Parking norms as per local regulation.
2. Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
3. A detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 05 kms radius of the project is maintained and improved upon after the implementation of the project. This plan should be based on cumulative impact of all development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 05 Kms radius of the site in different scenarios of space and time and the traffic management plan shall be duly validated and certified by the State Urban Development department and the P.W.D. / competent authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the participation of these departments.

IX. Human health issues:

1. All workers working at the construction site and involved in loading, unloading, carriage of construction material and construction debris or working in any area with dust pollution shall be provided with dust mask.
2. For indoor air quality the ventilation provisions as per National Building Code of India.



3. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
4. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
5. Occupational health surveillance of the workers shall be done on a regular basis.
6. A First Aid Room shall be provided in the project both during construction and operations of the project.
7. Ensure to create permanent housing facility to station at least two 3-4 fire tender vehicle with experienced man power within the developed premises to control fire in case of any eventualities.

X. Corporate Environment Responsibility:

1. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility.
2. The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements / deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
3. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection



measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the SEIAA/ Ministry, Regional Office along with the Six Monthly Compliance Report.

XI. Miscellaneous:

1. The project proponent shall prominently advertise it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days indicating that the project has been accorded environment clearance and the details of MoEF&CC / SEIAA website where it is displayed.
2. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
3. All utility lines (electricity, telephone, cable, water supply, sewage, drainage, etc. shall be laid below ground level. Ducts shall be provided along and across the roads to lay the utility lines. Major trunk (water/sewerage) lines are to be laid along the utility corridor.
4. Rest room facilities shall be provided for service population.
5. Permission shall be made for food waste management facility / Bio-composting unit preferably in the campus.
6. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
7. The project proponent shall abide by all the commitments and recommendations made in the EIA / EMP report, commitment made during their presentation to the State Expert Appraisal Committee.
8. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.



9. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
10. The project proponent shall inform the SEIAA, Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
11. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
12. No further expansion or modifications in the plant shall be carried out without prior approval of the SEIAA.
13. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
14. The EC granted on submitted basis of the layout plan of the proposed construction of buildings / establishments of industries shall be provisional for a period of one year or till its approved by the competent authority whichever is earlier. Should there be any deviation / change in the layout plan (as contained in the project proposal on which EC is granted), the Project Proponent shall furnish a copy along with a request to SEIAA, Bihar to make necessary correction / revision in the EC accordingly. Any failure on part of the Project Proponent in doing so will be treated as a violation of EC condition.
15. The SEIAA may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
16. The SEIAA reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
17. The Regional Office of the MoEF&CC, GoI / SEIAA shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer

(s) of the Regional Office by furnishing the requisite data / information / monitoring reports.

18. Project proponent shall erect a signboard on his project site and display information regarding name of the project, No. date and validity period of EC, and other relevant information for the general public.
19. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.
20. Environmental clearance shall remain valid for a maximum period of 7 years or completion of project whichever is earlier.
21. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.



Annexure - II (Distillery Project - EC)

1. The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the water (prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board / Committee.
2. The project proponent shall obtain the necessary permission from the Central Ground Water Authority, in case of drawl of ground water / from the competent authority concerned in case of drawl of surface water required for the project.
3. The project proponent shall obtain authorization under the Hazardous and other Waste Management Rules, 2016 as amended from time to time.
4. Adhere to 'Zero Liquid Discharge', Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.
5. Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.
6. To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and / or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB / SPCB guidelines.
7. Total fresh water requirement shall not exceed 600 KLD, proposed to be met from Ground water. Prior permission shall be obtained from the concerned regulatory authority / Central Ground Water Authority in this regard.
8. Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm and the solvent transfer through pumps.
9. Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.



10. The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.
11. The company shall undertake waste minimization measures as below:-
 - (i) Metering and control of quantities of active ingredients to minimize waste.
 - (ii) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
 - (iii) Use of automated filling to minimize spillage.
 - (iv) Use of Close Feed system into batch reactors.
 - (v) Venting equipment through vapour recovery system.
 - (vi) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
12. Green Belt shall be developed in an area equal to 1.42 ha of the plant area with a native tree species in accordance with CPCB / SEIAA, Bihar guidelines. The greenbelt shall inter alia cover the entire periphery of the plant.
13. All the commitments made regarding issues raised during the public hearing/ consultation meeting shall be satisfactorily implemented.
14. The Project Proponent shall comply with the provisions contained in Ministry of Environment, Forest & Climate Change OM Vide F. No. 22-65/2017-IA.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibilities. A separate Environment Cell with qualified personnel and a fully equipped laboratory shall be set up under the directly reporting to Board of Directors to supervise and monitor the compliance of all environmental conditions and existing rules applicable to the industry.
15. For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.

16. The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms.
17. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
18. There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products, and no parking to be allowed outside on public places.
19. Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.
20. Online Continuous Effluent/Emission Monitoring System (OCEMS) for 24x7 monitoring of stack emissions and effluent discharge shall be installed for measurement of prescribed parameters under EP Rules, 1986. The data of OCEMS shall be linked to to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel / drain carrying effluent within the premises. The data shall also be displayed on electronic display monitor on continuous basis at a suitable location which can be accessible to common public.
21. CO₂ generated from the process shall be bottled / made solid ice and sold to authorized vendors.
22. The Project authorities must strictly adhere to the stipulations made by the State Pollution Control Board (SPCB), State Government.
23. No further expansion or modification in their plant shall be carried out without prior approval of the SEIAA, Bihar Ministry of Environment, Forest and Climate Change (MoEF&CC). In case of deviations or alterations in the project proposal from those submitted to Ministry of Environment, Forest & Climate Change for Clearance, a fresh reference shall be made to the Ministry to assess the adequacy of conditions imposed and to add additional Environmental Protection Measures required, if any.

24. The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under Environment (Protection) Act, 1989 viz 75 dBA (daytime) and 70 dBA (night time).
25. The company shall harvest rainwater from the roof tops of the buildings and storm water drains to recharge the ground water and utilize the same for different industrial operations within the plant.
26. Training shall be imparted to all employees on safety and health aspects of chemicals handling.
27. Pre-employment and routine periodical medical examinations for all employees shall be undertaken on regular basis.
28. The company shall comply with all the Environmental Protection Measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA / EMP in respect of Environment Management, Risk Mitigation Measures and Public Hearing shall be implemented.
29. The company shall undertake all measures for improving socio-economic conditions of the surrounding area CSR activities shall be undertaken by involving local villagers, administrations and other stake holders. Also eco-developmental measures shall be undertaken for overall improvement of the environment.
30. The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the SEIAA, Bihar as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for Environment Management / Pollution Control measures shall not be diverted for any other purpose.
31. The copy of the Environmental Clearance shall be submitted by the Project Proponents to the Heads of local bodies, panchayats and Zila Parishad / Municipal Bodies and the local NGO, if any, from whom suggestion / representations, if any, were received while



- processing the proposal and in addition to the relevant offices of the Government who in turns has to display the same for 30 days from the date of receipt.
32. The Project Proponent shall submit six-monthly reports on the status of the compliance of the stipulation Environmental Clearance conditions including monitoring data (both in hard copies as well as by e-mail) to SEIAA, Bihar and the respective Regional Office of MoEF&CC, the respective Zonal office of CPCB and SPCB. A copy of Environmental Clearance and six-monthly compliance status report shall be posted on the company and on the website of the Ministry of Environment, Forest and Climate Change at Environment Clearance portal.
 33. The Project Proponent shall submit the environmental statement for each financial year in Form – V as is mandated shall be submitted to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company along with the status of compliance of Environmental Clearance conditions and shall also be sent to SEIAA, Bihar and the respective Regional Office of MoEF&CC by e-mail.
 34. The Project Proponent shall make public the Environmental Clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
 35. EC conditions which are in the interest of public at large must be permanently displayed throughout the project life at prominent place which can be easily visible to public mentioning the address and contact number of authority to whom violation of EC conditions can be reported.
 36. The SEIAA, Bihar reserves the right to stipulate additional conditions if found necessary. The company in a time bound manner shall implement these conditions.
 37. The SEIAA, Bihar may revoke or suspend the Clearance, if implementation of any of the above conditions is not satisfactory.



38. The Regional Office of this Ministry / SEIAA, Bihar shall monitor compliance of the stipulated conditions. The Project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information / monitoring reports.
39. Project proponent shall erect a signboard on his project site and display information regarding name of the project, No. date and validity period of EC, annual production capacity and other relevant information for the general public.
40. The EC granted on submitted basis of the layout plan of the proposed construction of buildings / establishments of industries shall be provisional for a period of one year or till its approved by the competent authority whichever is earlier. Should there be any deviation / change in the layout plan (as contained in the project proposal on which EC is granted), the Project Proponent shall furnish a copy along with a request to SEIAA, Bihar to make necessary correction / revision in the EC accordingly. Any failure on part of the Project Proponent in doing so will be treated as a violation of EC condition
41. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.
42. Concealing factual data or submission of false / fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this Clearance and attract action under the provisions of Environment (Protection) Act, 1986.
43. Any Appeal against this Environmental Clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under section 16 of the National Green Tribunal Act, 2010.



Annexure - III (Rose Valley - EC)

I. Statutory compliance:

1. The project proponent shall obtain all necessary clearance / permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
2. The Project proponent will obtain CTE from the BSPCB before preparing site for construction if applicable and CTO before giving occupancy.
3. The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc. as per National Building Code including protection measures from lightening etc.
4. All directions of the Airport Authority, Director of Explosives and Fire Department etc. shall be complied with.
5. The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board/ Committee.
6. The project proponent shall obtain the necessary permission for drawl of ground water / surface water required for the project from the competent authority.
7. A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project should be obtained.
8. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department shall be obtained, as applicable, by project proponents from the respective competent authorities.
9. The provisions of the Solid Waste (Management) Rules, 2016, e-Waste (Management) Rules, 2016, and the Plastics Waste (Management) Rules, 2016 shall be followed.
10. The project proponent shall follow the ECBC / ECBC-R prescribed by Bureau of Energy Efficiency, Ministry of Power strictly.

11. The facilities provided for collection, segregation, handling, on site storage & processing of solid waste such as chute system for multi-storey buildings, wet & dry bins, collection center & mechanical composter etc. shall be properly maintained. The collected solid waste shall be segregated at site. The recyclable solid waste shall be sold out to the authorized vendors for which a written tie-up must be done with the authorized recyclers.
12. Hazardous waste / E-waste should be disposed off as per Rules applicable and with the necessary approval of the Bihar State Pollution Control Board.
13. Solar power plant or other solar energy related equipment's shall be operated and maintained properly.
14. Provisions shall be made for the integration of solar water heating system.
15. EC conditions applicable for construction and operation phase which are in the interest of public at large must be displayed at prominent place which can be easily accessible to public along with address and contact number of authority to whom violation of EC conditions can be reported.

Project site shall be adequately barricaded before the start of construction activity by erecting suitable windscreen upto. $1/3^{\text{rd}}$ of the building height or 10 meter height whichever is more to prevent dispersion of particulate matter from the construction site.

16. Free Parking facility for visitors shall be provided within the project premises to avoid congestion on public road.

II. Air quality monitoring and preservation

1. Notification GSR 94(E) dated 25.01.2018 of MoEF&CC regarding Mandatory Implementation of Dust Mitigation Measures for Construction and Demolition Activities for projects requiring Environmental Clearance shall be complied with.
2. A management plan shall be drawn up and implemented to contain the current exceedance in ambient air quality at the site.
3. Diesel power generating sets proposed as source of backup power should be of enclosed type and conform to rules made under the Environment (Protection) Act, 1986. The



height of stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets. Diesel to be used should have lower sulphur content. The location of the DG sets may be decided with in consultation with State Pollution Control Board.

4. Project site shall be adequately barricaded before the start of construction activity by erecting suitable windscreen upto. 1/3rd of the building height or 10 meter height whichever is more to prevent dispersion of particulate matter from the construction site. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. Plastic / tarpaulin sheet covers shall be provided for vehicles bringing all loose construction material e.g. sand, cement, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site.
5. All loose construction material e.g. sand, soil, cement, stored on site shall be covered adequately so as to prevent dust pollution.
6. Wet jet shall be provided for grinding and stone cutting.
7. Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.
8. All construction and demolition debris shall be stored at the site (and not dumped on the roads or open spaces outside) before they are properly disposed. All demolition and construction waste shall be managed as per the provisions of the Construction and Demolition Waste Rules 2016.
9. The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
10. The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.



11. For indoor air quality the ventilation provisions as per National Building Code of India.

III. Water quality monitoring and preservation:

1. The natural drain system should be maintained for ensuring unrestricted flow of water. No construction shall be allowed to obstruct the natural drainage through the site, on wetland and water bodies. Check dams, bio-swales, landscape, and other sustainable urban drainage systems (SUDS) are allowed for maintaining the drainage pattern and to harvest rain water.
2. Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.
3. Total fresh water use shall not exceed the proposed requirement as provided in the project details.
4. The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the, SEIAA/ Regional Office, MoEF&CC along with six monthly Monitoring reports.
5. A certificate shall be obtained from the local body supplying water, specifying the total annual water availability with the local authority, the quantity of water already committed, the quantity of water allotted to the project under consideration and the balance water available. This should be specified separately for ground water and surface water sources, ensuring that there is no impact on other users.
6. At least 20% of the open spaces as required by the local building bye-laws shall be pervious. Use of Grass pavers, paver blocks with at least 50% opening, landscape etc. would be considered as pervious surface.
7. Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc. and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.



8. Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc.) for water conservation shall be incorporated in the building plan.
9. Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done.
10. Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
11. The local bye-law provisions on rain water harvesting should be followed. If local byelaw provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model Building Byelaws, 2016. Rain water harvesting recharge pits/storage tanks shall be provided for ground water recharging as per the CGWB norms.
12. A rain water harvesting plan needs to be designed where the recharge bores of minimum one recharge bore per 5,000 square meters of built up area and storage capacity of minimum one day of total fresh water requirement shall be provided. In areas where ground water recharge is not feasible, the rain water should be harvested and stored for reuse. The ground water shall not be withdrawn without approval from the Competent Authority.
13. All recharge should be limited to shallow aquifer.
14. No ground water shall be used during construction phase of the project.
15. Any ground water dewatering should be properly managed and shall conform to the approvals and the guidelines of the CGWA in the matter. Formal approval shall be taken from the CGWA for any ground water abstraction or dewatering.
16. The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.



17. Sewage shall be treated in the STP with tertiary treatment. The treated effluent from STP shall be recycled/re-used for flushing, AC make up water and gardening. As proposed, no treated water shall be disposed in to municipal drain.
18. No sewage or untreated effluent water would be discharged through storm water drains.
19. Onsite sewage treatment of capacity of treating 100% waste water to be installed. The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Treated waste water shall be reused on site for landscape, flushing, cooling tower, and other end-uses. Excess treated water shall be discharged as per statutory norms notified by Ministry of Environment, Forest and Climate Change. Natural treatment systems shall be promoted.
20. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
21. Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
22. Separate drainage system shall be developed for storm water so that end point discharge to nearest nallah / river is ensured to avoid water logging without any increase in the pollution load in receiving system.
23. Possibilities needs to be explored to use STP waste water during construction phase. Fresh water shall be used only after exhausting the possibility of obtaining STP waste water located in municipal jurisdiction

IV. Noise monitoring and prevention:

1. Ambient noise levels shall conform to residential area silence zone both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction



phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.

2. Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.
3. Acoustic enclosures for DG sets, noise barriers for ground-run bays, ear plugs for operating personnel shall be implemented as mitigation measures for noise impact due to ground sources.

V. Energy Conservation measures:

1. Compliance with the Energy Conservation Building Code (ECBC) of Bureau of Energy Efficiency shall be ensured. Buildings in the States which have notified their own ECBC, shall comply with the State ECBC.
2. Outdoor and common area lighting shall be LED.
3. Concept of passive solar design that minimize energy consumption in buildings by using design elements, such as building orientation, landscaping, efficient building envelope, appropriate fenestration, increased day lighting design and thermal mass etc. shall be incorporated in the building design. Wall, window, and roof u-values shall be as per ECBC specifications.
4. Energy conservation measures like installation of CFLs / LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning.
5. Solar, wind or other Renewable Energy shall be installed to meet electricity generation equivalent to 1% of the demand load or as per the state level/ local building bye-law's requirement, whichever is higher.
6. Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. Solar water heating shall be provided to meet 20% of the hot water demand of the commercial and institutional



building or as per the requirement of the local building bye-laws, whichever is higher. Residential buildings are also recommended to meet its hot water demand from solar water heaters, as far as possible.

VI. Waste Management:

1. A certificate from the competent authority handling municipal solid wastes, indicating the existing civic capacities of handling and their adequacy to cater to the M.S.W. generated from project shall be obtained.
2. Proper composting / vermi-composting of municipal and biodegradable solid wastes shall be carried out. All municipal solid wastes shall be segregated, collected, transported, treated and disposed as per provisions of the Municipal Solid Wastes (Management and Handling) Rules, 2000 (As amended).
3. All the top soil excavated during construction activities shall be stored for use in horticulture/landscape development within the project site.
4. Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
5. Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials.
6. Organic waste compost /Vermiculture pit / Organic Waste Converter within the premises with a minimum capacity of 0.3 kg /person/day must be installed.
7. All non-biodegradable waste shall be handed over to authorized recyclers for which a written tie up must be done with the authorized recyclers.
8. Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.



9. Use of environment friendly materials in bricks, blocks and other construction materials, shall be required for at least 20% of the construction material quantity. These include Fly Ash bricks, hollow bricks, AACs, Fly Ash Lime Gypsum blocks, Compressed earth blocks, and other environment friendly materials.
10. Fly ash should be used as building material in the construction as per the provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016, Ready mixed concrete must be used in building construction.
11. Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Rules, 2016.
12. Used CFLs and TFLs should be properly collected and disposed / sent for recycling as per the prevailing guidelines / rules of the regulatory authority to avoid mercury contamination.

VII. Green Cover:

1. No tree should be felled unless exigencies demand. Wherever absolutely necessary, tree felling shall be done with prior permission from the concerned regulatory authority. Old trees should be retained based on girth and age regulations as may be prescribed by the Forest Department. Plantations to be ensured in the ratio of species cut to species planted.
2. 2,118.0 m² (21.95%) of the plot area shall be kept under green belt cover within the project site.
3. All the affords shall be made not to cut any tree however if any tree need to be removed necessarily a prior permission from concerned local Authority shall be obtained. In case of felling plantations to be insured in the ratio of species cut / removed to species planted. Area for green belt development shall be provided as per the details provided in the Project document.
4. Topsoil should be stripped to a depth of 20 cm from the areas proposed for buildings, roads, paved areas, and external services. It should be stockpiled appropriately in designated areas and reapplied during plantation of the proposed vegetation on site.

VIII. Transport:

1. A comprehensive mobility plan, as per MoUD best practices guidelines (URDPFI), shall be prepared to include motorized, non-motorized, public, and private networks. Road should be designed with due consideration for environment, and safety of users. The road system can be designed with these basic criteria.
 - e. Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
 - f. Traffic calming measures.
 - g. Proper design of entry and exit points.
 - h. Parking norms as per local regulation.
2. Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
3. A detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 05 km radius of the project is maintained and improved upon after the implementation of the project. This plan should be based on cumulative impact of all development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 05 km radius of the site in different scenarios of space and time and the traffic management plan shall be duly validated and certified by the State Urban Development department and the P.W.D. / competent authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the participation of these departments.

IX. Human health issues:

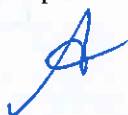
1. All workers working at the construction site and involved in loading, unloading, carriage of construction material and construction debris or working in any area with dust pollution shall be provided with dust mask.



2. For indoor air quality the ventilation provisions as per National Building Code of India.
3. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
4. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
5. Occupational health surveillance of the workers shall be done on a regular basis.
6. A First Aid Room shall be provided in the project both during construction and operations of the project.
7. Ensure to create permanent housing facility to station at least two 3-4 fire tender vehicle with experienced man power within the developed premises to control fire in case of any eventualities.

X. Corporate Environment Responsibility:

1. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility.
2. The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements / deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or share holders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.



3. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the SEIAA/ Ministry, Regional Office along with the Six Monthly Compliance Report.

XI. Miscellaneous:

1. The project proponent shall prominently advertise it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days indicating that the project has been accorded environment clearance and the details of MoEF&CC / SEIAA website where it is displayed.
2. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
3. All utility lines (electricity, telephone, cable, water supply, sewage, drainage, etc. shall be laid below ground level. Ducts shall be provided along and across the roads to lay the utility lines. Major trunk (water/sewerage) lines are to be laid along the utility corridor.
4. Rest room facilities shall be provided for service population.
5. Permission shall be made for food waste management facility / Bio-composting unit preferably in the campus.
6. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
7. The project proponent shall abide by all the commitments and recommendations made in the EIA / EMP report, commitment made during their presentation to the State Expert Appraisal Committee.



8. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
9. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
10. The project proponent shall inform the SEIAA, Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
11. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
12. No further expansion or modifications in the plant shall be carried out without prior approval of the SEIAA.
13. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
14. The EC granted on submitted basis of the layout plan of the proposed construction of buildings / establishments of industries shall be provisional for a period of one year or till its approved by the competent authority whichever is earlier. Should there be any deviation / change in the layout plan (as contained in the project proposal on which EC is granted), the Project Proponent shall furnish a copy along with a request to SEIAA, Bihar to make necessary correction / revision in the EC accordingly. Any failure on part of the Project Proponent in doing so will be treated as a violation of EC condition.
15. The SEIAA may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.



16. The SEIAA reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
17. The Regional Office of the MoEF&CC, GoI / SEIAA shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information / monitoring reports.
18. Project proponent shall erect a signboard on his project site and display information regarding name of the project, No. date and validity period of EC, and other relevant information for the general public.
19. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.
20. Environmental clearance shall remain valid for a maximum period of 7 years or completion of project whichever is earlier.
21. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.



Annexure - IV (For Medical College and Hospital project)

I. Statutory compliance:

1. The project proponent shall obtain all necessary clearance / permission from all relevant agencies including competent town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
2. The Project proponent will obtain CTE from the BSPCB before preparing site for construction if applicable and CTO before the operation phase.
3. The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc. as per National Building Code including protection measures from lightening and other Natural calamities.
4. All directions of the Airport Authority, Director of Explosives and Fire Department etc. shall be complied with.
5. The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board/ Committee.
6. The project proponent shall obtain the necessary permission for drawl of ground water / surface water required for the project from the competent authority.
7. A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project shall be obtained.
8. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department shall be obtained, as applicable, by project proponents from the respective competent authorities.
9. The provisions of the Solid Waste (Management) Rules, 2016, e-Waste (Management) Rules, 2016, and the Plastics Waste (Management) Rules, 2016 shall be followed.



10. The project proponent shall follow the ECBC / ECBC-R prescribed by Bureau of Energy Efficiency, Ministry of Power strictly.
11. The facilities provided for collection, segregation, handling, on site storage & processing of solid waste such as chute system for multi-storey buildings, wet & dry bins, collection centre & mechanical composter etc. shall be properly maintained. The collected solid waste shall be segregated at site. The recyclable solid waste shall be sold out to the authorized vendors for which a written tie-up must be done with the authorized recyclers.
12. Bio-Medical waste to be generated in the hospital shall be handled and managed as per the provisions of Bio-Medical waste (Management & Handling) Rules, 2016. Radioactive waste management program shall be adopted and implemented at the site in order to mitigate the effects coming out due to use of atomic radiation in different equipment's.
13. Hazardous waste/E-waste should be disposed as per Rules applicable and with the necessary approval of the Bihar State Pollution Control Board.
14. Solar power plant or other solar energy related equipment's shall be operated and maintained properly.
15. Provisions shall be made for the integration of solar water heating system.
16. EC conditions applicable for construction and operation phase which are in the interest of public at large must be displayed at prominent place which can be easily accessible to public along with address and contact number of authority to whom violation of EC conditions can be reported.

Project site shall be adequately barricaded before the start of construction activity by erecting suitable windscreen upto. $1/3^{\text{rd}}$ of the building height or 10 meter height whichever is more to prevent dispersion of particulate matter from the construction site.

17. Free Parking facility for patient and visitors shall be provided within the project premises to avoid congestion on public road.
18. A separate Environment Cell with qualified personnel shall be set up under the directly reporting to Board of Directors to supervise and monitor the compliance of all



environmental conditions and existing rules applicable to a medical college and hospital project for construction and operation phase.

II. Air quality monitoring and preservation

1. Notification GSR 94(E) dated 25.01.2018 of MoEF&CC regarding Mandatory Implementation of Dust Mitigation Measures for Construction and Demolition Activities for projects requiring Environmental Clearance shall be complied with.
2. A management plan shall be drawn up and implemented to contain the current exceedance in ambient air quality at the site.
3. The project proponent shall install system to carryout Ambient Air Quality monitoring for common / criterion parameters relevant to the main pollutants released (e.g. PM₁₀ and PM_{2.5}) covering upwind and downwind directions during the construction period.
4. Diesel power generating sets proposed as source of backup power should be of enclosed type and conform to rules made under the Environment (Protection) Act, 1986. The height of stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets. Diesel to be used should have lower in sulphur content. The location of the DG sets may be decided with in consultation with State Pollution Control Board.
12. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. Plastic / tarpaulin sheet covers shall be provided for vehicles bringing all loose construction material e.g sand, cement, murram and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site.
13. All loose construction material e.g sand, soil, cement, stored on site shall be covered adequately so as to prevent dust pollution.
5. Wet jet shall be provided for grinding and stone cutting.
6. Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.

7. All construction and demolition debris shall be stored at the site (and not dumped on the roads or open spaces outside) before they are properly disposed. All demolition and construction waste shall be managed as per the provisions of the Construction and Demolition Waste Rules 2016.
8. The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
9. The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
10. For indoor air quality the ventilation provisions as per National Building Code of India shall be followed.
11. Real time continuous ambient air quality monitoring system (CAAQMS) shall be installed with an electronic display unit in consultation with the SPCB to monitor air quality parameters as per National Ambient Air Quality Standard-2009. The CAAQMS must be linked to the SPCB server. CAAQMS shall be functional before the operational phase, and the results shall be displayed on continuous basis at the main entrance of hospital.

III. Water quality monitoring and preservation:

1. The natural drain system should be maintained for ensuring unrestricted flow of water. No construction shall be allowed to obstruct the natural drainage through the site, on wetland and water bodies. Check dams, bio-swales, landscape, and other sustainable urban drainage systems (SUDS) are allowed for maintaining the drainage pattern and to harvest rain water.
2. Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.



3. Total fresh water use shall not exceed the proposed requirement as provided in the project details.
4. The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the, SEIAA/ Regional Office, MoEF&CC along with six monthly Monitoring reports.
5. A certificate shall be obtained from the local body supplying water, specifying the total annual water availability with the local authority, the quantity of water already committed, the quantity of water allotted to the project under consideration and the balance water available. This should be specified separately for ground water and surface water sources, ensuring that there is no impact on other users.
6. At least 20% of the open spaces as required by the local building bye-laws shall be pervious. Use of Grass pavers, paver blocks with at least 50% opening, landscape etc. would be considered as pervious surface.
7. Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc. and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
8. Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc.) for water conservation shall be incorporated in the building plan.
9. Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done.
10. Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
11. The local bye-law's provisions on rain water harvesting should be followed. If local bye-laws provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model Building Byelaws, 2016. Rain



water harvesting recharge pits/storage tanks shall be provided for ground water recharging as per the CGWB norms.

12. A rain water harvesting plan needs to be designed where the recharge bores of minimum one recharge bore per 5,000 square meters of built up area and storage capacity of minimum one day of total fresh water requirement shall be provided. In areas where ground water recharge is not feasible, the rain water should be harvested and stored for reuse. The ground water shall not be withdrawn without approval from the Competent Authority.
13. All recharge should be limited to shallow aquifer.
14. No ground water shall be used during construction phase of the project.
15. Any ground water dewatering should be properly managed and shall conform to the approvals and the guidelines of the CGWA in the matter. Formal approval shall be taken from the CGWA for any ground water abstraction or dewatering.
16. The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
17. Sewage shall be treated in the STP with tertiary treatment. The treated effluent from STP shall be recycled/re-used for flushing, AC make up water and gardening. As proposed, no treated water shall be disposed in to municipal drain.
18. No sewage or untreated effluent water would be discharged through storm water drains.
19. Onsite sewage treatment of capacity of treating 100% waste water to be installed. The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the SEIAA before the project is commissioned for operation. Treated waste water shall be reused on site for landscape, flushing, cooling tower, and other end-uses. Excess treated water shall be discharged as per statutory norms notified by Ministry of Environment, Forest and Climate Change. Natural treatment systems shall be promoted.



20. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
21. Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
22. Separate drainage system shall be developed for storm water so that end point discharge to nearest nallah / river is ensured to avoid water logging without any increase in the pollution load in receiving system.
23. Possibilities needs to be explored to use STP waste water during construction phase. Fresh water shall be used only after exhausting the possibility of obtaining STP waste water located in municipal jurisdiction.

IV. Noise monitoring and prevention:

1. Ambient noise levels shall conform to residential area silence zone both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.
2. Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.
3. Acoustic enclosures for DG sets, noise barriers for ground-run bays, ear plugs for operating personnel shall be implemented as mitigation measures for noise impact due to ground sources.



4. Real time Ambient Noise level monitoring system shall be installed having consultation with SPCB before the operation phase of the project. The measured noise level vale shall be displayed on the Main Entry Gate of the campus.

V. Energy Conservation measures:

1. Compliance with the Energy Conservation Building Code (ECBC) of Bureau of Energy Efficiency shall be ensured. Buildings in the States which have notified their own ECBC, shall comply with the State ECBC.
2. Outdoor and common area lighting shall be LED.'
3. Concept of passive solar design that minimize energy consumption in buildings by using design elements, such as building orientation, landscaping, efficient building envelope, appropriate fenestration, increased day lighting design and thermal mass etc. shall be incorporated in the building design. Wall, window, and roof u-values shall be as per ECBC specifications.
4. Energy conservation measures like installation of CFLs / LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning.
5. Solar, wind or other Renewable Energy shall be installed to meet electricity generation equivalent to 1% of the demand load or as per the state level/ local building bye-law's requirement, whichever is higher.
6. Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. Solar water heating shall be provided to meet 20% of the hot water demand of the commercial and institutional building or as per the requirement of the local building bye-laws, whichever is higher. Residential buildings are also recommended to meet its hot water demand from solar water heaters, as far as possible.



VI. Waste Management:

1. A certificate from the competent authority handling municipal solid wastes, indicating the existing civic capacities of handling and their adequacy to cater to the M.S.W. generated from project shall be obtained.
2. Proper composting / vermi-composting of municipal and biodegradable solid wastes shall be carried out. All municipal solid wastes shall be segregated, collected, transported, treated and disposed as per provisions of the Municipal Solid Wastes (Management and Handling) Rules, 2000 (As amended).
3. All the top soil excavated during construction activities shall be stored for use in horticulture/landscape development within the project site.
4. Disposal of muck during construction phase shall not create any adverse effect on the neighbouring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
5. Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials.
6. Organic waste compost / Vermiculture pit / Organic Waste Converter within the premises with a minimum capacity of 0.3 kg /person/day must be installed.
7. All non-biodegradable waste shall be handed over to authorized recyclers for which a written tie up must be done with the authorized recyclers.
8. Any hazardous waste generated during construction phase, shall be disposed as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
9. Use of environment friendly materials in bricks, blocks and other construction materials, shall be required for at least 20% of the construction material quantity. These include Fly



Ash bricks, hollow bricks, AACs, Fly Ash Lime Gypsum blocks, Compressed earth blocks, and other environment friendly materials.

10. Fly ash should be used as building material in the construction as per the provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016, Ready mixed concrete must be used in building construction.
11. Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Rules, 2016.
12. Used CFLs and TFLs should be properly collected and disposed off / sent for recycling as per the prevailing guidelines / rules of the regulatory authority to avoid mercury contamination.

VII. Green Cover:

1. No tree can be felled unless exigencies demand. Wherever absolutely necessary, tree felling shall be done with prior permission from the concerned regulatory authority. Plantations to be ensured in the ratio of species cut to species planted.
2. 25,907.75 m² (25.61%) of the plot area shall be kept under green belt cover within the project site.
3. All the efforts shall be made not to cut any tree however if any tree need to be removed necessarily a prior permission from concerned local Authority shall be obtained. In case of felling plantations to be insured in the ratio of species cut / removed to species planted. Area for green belt development shall be provided as per the details provided in the Project document.
4. Topsoil should be stripped to a depth of 20 cm from the areas proposed for buildings, roads, paved areas, and external services. It should be stockpiled appropriately in designated areas and reapplied during plantation of the proposed vegetation on site.



VIII. Transport:

1. A comprehensive mobility plan, as per MoUD best practices guidelines (URDPFI), shall be prepared to include motorized, non-motorized, public, and private networks. Road should be designed with due consideration for environment, and safety of users. The road system can be designed with these basic criteria.
 - i. Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
 - j. Traffic calming measures.
 - k. Proper design of entry and exit points.
 - l. Parking norms as per local regulation.
2. Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
3. A detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 05 kms radius of the project is maintained and improved upon after the implementation of the project. This plan should be based on cumulative impact of all development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 05 Kms radius of the site in different scenarios of space and time and the traffic management plan shall be duly validated and certified by the State Urban Development department and the P.W.D. / competent authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the participation of these departments.

IX. Human health issues:

1. All workers working at the construction site and involved in loading, unloading, carriage of construction material and construction debris or working in any area with dust pollution shall be provided with dust mask.



2. For indoor air quality the ventilation provisions as per National Building Code of India shall be followed.
3. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
4. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
5. Occupational health surveillance of the workers shall be done on a regular basis.
6. A First Aid Room shall be provided in the project both during construction and operations of the project.

X. Corporate Environment Responsibility:

1. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility.
2. The Management shall have a well laid down environmental policy duly approved by the competent Authority. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements / deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or share holders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
3. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly report to the head of the organization.



4. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the management shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the SEIAA/ Ministry, Regional Office along with the Six Monthly Compliance Report.

XI. Miscellaneous:

1. The project proponent shall prominently advertise it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days indicating that the project has been accorded environment clearance and the details of MoEF&CC / SEIAA website where it is displayed.
2. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
3. All utility lines (electricity, telephone, cable, water supply, sewage, drainage, etc. shall be laid below ground level. Ducts shall be provided along and across the roads to lay the utility lines. Major trunk (water/sewerage) lines are to be laid along the utility corridor.
4. Rest room facilities shall be provided for service population.
5. Permission shall be made for food waste management facility / Bio-composting unit preferably in the campus.
6. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
7. The project proponent shall abide by all the commitments and recommendations made in the EIA / EMP report, commitment made during their presentation to the State Expert Appraisal Committee.



8. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
9. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
10. The project proponent shall inform the SEIAA, Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production / operation of the project.
11. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
12. No further expansion or modifications in the plant shall be carried out without prior approval of the SEIAA.
13. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
14. The SEIAA may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
15. The EC granted on submitted basis of the layout plan of the proposed construction of buildings / establishments of industries shall be provisional for a period of one year or till its approved by the competent authority whichever is earlier. Should there be any deviation / change in the layout plan (as contained in the project proposal on which EC is granted), the Project Proponent shall furnish a copy along with a request to SEIAA, Bihar to make necessary correction / revision in the EC accordingly. Any failure on part of the Project Proponent in doing so will be treated as a violation of EC condition.



16. The SEIAA reserves the right to stipulate additional conditions if found necessary. The Management in a time bound manner shall implement these conditions.
17. The Regional Office of the MoEF&CC, GoI / SEIAA shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information / monitoring reports.
18. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.
19. Environmental clearance shall remain valid for a maximum period of 7 years or completion of project whichever is earlier.
20. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.



Annexure - V (IOB Galaxy - EC)

I. Statutory compliance:

1. The project proponent shall obtain all necessary clearance / permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
2. The Project proponent will obtain CTE from the BSPCB before preparing site for construction if applicable and CTO before giving occupancy.
3. The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc. as per National Building Code including protection measures from lightening etc.
4. All directions of the Airport Authority, Director of Explosives and Fire Department etc. shall be complied with.
5. The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board/ Committee.
6. The project proponent shall obtain the necessary permission for drawl of ground water / surface water required for the project from the competent authority.
7. A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project should be obtained.
8. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department shall be obtained, as applicable, by project proponents from the respective competent authorities.
9. The provisions of the Solid Waste (Management) Rules, 2016, e-Waste (Management) Rules, 2016, and the Plastics Waste (Management) Rules, 2016 shall be followed.
10. The project proponent shall follow the ECBC / ECBC-R prescribed by Bureau of Energy Efficiency, Ministry of Power strictly.



11. The facilities provided for collection, segregation, handling, on site storage & processing of solid waste such as chute system for multi-storey buildings, wet & dry bins, collection center & mechanical composter etc. shall be properly maintained. The collected solid waste shall be segregated at site. The recyclable solid waste shall be sold out to the authorized vendors for which a written tie-up must be done with the authorized recyclers.
12. Hazardous waste / E-waste should be disposed off as per Rules applicable and with the necessary approval of the Bihar State Pollution Control Board.
13. Solar power plant or other solar energy related equipment's shall be operated and maintained properly.
14. Provisions shall be made for the integration of solar water heating system.
15. EC conditions applicable for construction and operation phase which are in the interest of public at large must be displayed at prominent place which can be easily accessible to public along with address and contact number of authority to whom violation of EC conditions can be reported.

Project site shall be adequately barricaded before the start of construction activity by erecting suitable windscreen upto. $1/3^{\text{rd}}$ of the building height or 10 meter height whichever is more to prevent dispersion of particulate matter from the construction site.

16. Free Parking facility for visitors shall be provided within the project premises to avoid congestion on public road.

II. Air quality monitoring and preservation

1. Notification GSR 94(E) dated 25.01.2018 of MoEF&CC regarding Mandatory Implementation of Dust Mitigation Measures for Construction and Demolition Activities for projects requiring Environmental Clearance shall be complied with.
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


3. Diesel power generating sets proposed as source of backup power should be of enclosed type and conform to rules made under the Environment (Protection) Act, 1986. The height of stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets. Diesel to be used should have lower sulphur content. The location of the DG sets may be decided with in consultation with State Pollution Control Board.
4. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. Plastic / tarpaulin sheet covers shall be provided for vehicles bringing all loose construction material e.g sand, cement, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site.
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8. All construction and demolition debris shall be stored at the site (and not dumped on the roads or open spaces outside) before they are properly disposed. All demolition and construction waste shall be managed as per the provisions of the Construction and Demolition Waste Rules 2016.
9. The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
10. The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
11. For indoor air quality the ventilation provisions as per National Building Code of India.

III. Water quality monitoring and preservation:

1. The natural drain system should be maintained for ensuring unrestricted flow of water. No construction shall be allowed to obstruct the natural drainage through the site, on wetland and water bodies. Check dams, bio-swales, landscape, and other sustainable urban drainage systems (SUDS) are allowed for maintaining the drainage pattern and to harvest rain water.
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4. The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the, SEIAA/ Regional Office, MoEF&CC along with six monthly Monitoring reports.
5. A certificate shall be obtained from the local body supplying water, specifying the total annual water availability with the local authority, the quantity of water already committed, the quantity of water allotted to the project under consideration and the balance water available. This should be specified separately for ground water and surface water sources, ensuring that there is no impact on other users.
6. At least 20% of the open spaces as required by the local building bye-laws shall be pervious. Use of Grass pavers, paver blocks with at least 50% opening, landscape etc. would be considered as pervious surface.
7. Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc. and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
8. Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc.) for water conservation shall be incorporated in the building plan.

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10. Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
11. The local bye-law provisions on rain water harvesting should be followed. If local byelaw provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model Building Byelaws, 2016. Rain water harvesting recharge pits/storage tanks shall be provided for ground water recharging as per the CGWB norms.
12. A rain water harvesting plan needs to be designed where the recharge bores of minimum one recharge bore per 5,000 square meters of built up area and storage capacity of minimum one day of total fresh water requirement shall be provided. In areas where ground water recharge is not feasible, the rain water should be harvested and stored for reuse. The ground water shall not be withdrawn without approval from the Competent Authority.
13. All recharge should be limited to shallow aquifer.
14. No ground water shall be used during construction phase of the project.
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17. Sewage shall be treated in the STP with tertiary treatment. The treated effluent from STP shall be recycled/re-used for flushing, AC make up water and gardening. As proposed, no treated water shall be disposed in to municipal drain.



18. No sewage or untreated effluent water would be discharged through storm water drains.
19. Onsite sewage treatment of capacity of treating 100% waste water to be installed. The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Treated waste water shall be reused on site for landscape, flushing, cooling tower, and other end-uses. Excess treated water shall be discharged as per statutory norms notified by Ministry of Environment, Forest and Climate Change. Natural treatment systems shall be promoted.
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21. Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
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2. Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.
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Residential buildings are also recommended to meet its hot water demand from solar water heaters, as far as possible.

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1. A certificate from the competent authority handling municipal solid wastes, indicating the existing civic capacities of handling and their adequacy to cater to the M.S.W. generated from project shall be obtained.
2. Proper composting / vermi-composting of municipal and biodegradable solid wastes shall be carried out. All municipal solid wastes shall be segregated, collected, transported, treated and disposed as per provisions of the Municipal Solid Wastes (Management and Handling) Rules, 2000 (As amended).
3. All the top soil excavated during construction activities shall be stored for use in horticulture/landscape development within the project site.
4. Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
5. Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials.
6. Organic waste compost / Vermiculture pit / Organic Waste Converter within the premises with a minimum capacity of 0.3 kg /person/day must be installed.
7. All non-biodegradable waste shall be handed over to authorized recyclers for which a written tie up must be done with the authorized recyclers.
8. Any hazardous waste generated during construction phase, shall be disposed as per applicable rules and norms with necessary approvals of the State Pollution Control Board.



9. Use of environment friendly materials in bricks, blocks and other construction materials, shall be required for at least 20% of the construction material quantity. These include Fly Ash bricks, hollow bricks, AACs, Fly Ash Lime Gypsum blocks, Compressed earth blocks, and other environment friendly materials.
10. Fly ash should be used as building material in the construction as per the provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016, Ready mixed concrete must be used in building construction.
11. Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Rules, 2016.
12. Used CFLs and TFLs should be properly collected and disposed off / sent for recycling as per the prevailing guidelines / rules of the regulatory authority to avoid mercury contamination.

VII. Green Cover:

1. No tree should be felled unless exigencies demand. Wherever absolutely necessary, tree felling shall be done with prior permission from the concerned regulatory authority. Old trees should be retained based on girth and age regulations as may be prescribed by the Forest Department. Plantations to be ensured in the ratio of species cut to species planted.
2. 7,857 m² (20%) of the plot area shall be kept under green belt cover within the project site.
3. All the affords shall be made not to cut any tree however if any tree need to be removed necessarily a prior permission from concerned local Authority shall be obtained. In case of felling plantations to be insured in the ratio of species cut / removed to species planted. Area for green belt development shall be provided as per the details provided in the Project document.
4. Topsoil should be stripped to a depth of 20 cm from the areas proposed for buildings, roads, paved areas, and external services. It should be stockpiled appropriately in designated areas and reapplied during plantation of the proposed vegetation on site.



VIII. Transport:

1. A comprehensive mobility plan, as per MoU best practices guidelines (URDPFI), shall be prepared to include motorized, non-motorized, public, and private networks. Road should be designed with due consideration for environment, and safety of users. The road system can be designed with these basic criteria.
 - a. Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
 - b. Traffic calming measures.
 - c. Proper design of entry and exit points.
 - d. Parking norms as per local regulation.
2. Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
3. A detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 05 km radius of the project is maintained and improved upon after the implementation of the project. This plan should be based on cumulative impact of all development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 05 Kms radius of the site in different scenarios of space and time and the traffic management plan shall be duly validated and certified by the State Urban Development department and the P.W.D. / competent authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the participation of these departments.

IX. Human health issues:

1. All workers working at the construction site and involved in loading, unloading, carriage of construction material and construction debris or working in any area with dust pollution shall be provided with dust mask.
2. For indoor air quality the ventilation provisions as per National Building Code of India.



3. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
4. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
5. Occupational health surveillance of the workers shall be done on a regular basis.
6. A First Aid Room shall be provided in the project both during construction and operations of the project.
7. Ensure to create permanent housing facility to station at least two 3-4 fire tender vehicle with experienced man power within the developed premises to control fire in case of any eventualities.

X. Corporate Environment Responsibility:

1. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility.
2. The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements / deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.
3. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection



measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the SEIAA / Ministry, Regional Office along with the Six Monthly Compliance Report.

XI. Miscellaneous:

1. The project proponent shall prominently advertise it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days indicating that the project has been accorded environment clearance and the details of MoEF&CC / SEIAA website where it is displayed.
2. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
3. All utility lines (electricity, telephone, cable, water supply, sewage, drainage, etc. shall be laid below ground level. Ducts shall be provided along and across the roads to lay the utility lines. Major trunk (water/sewerage) lines are to be laid along the utility corridor.
4. Rest room facilities shall be provided for service population.
5. Permission shall be made for food waste management facility / Bio-composting unit preferably in the campus.
6. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
7. The project proponent shall abide by all the commitments and recommendations made in the EIA / EMP report, commitment made during their presentation to the State Expert Appraisal Committee.
8. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.

9. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
10. The project proponent shall inform the SEIAA, Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
11. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
12. No further expansion or modifications in the plant shall be carried out without prior approval of the SEIAA.
13. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
14. The EC granted on submitted basis of the layout plan of the proposed construction of buildings / establishments of industries shall be provisional for a period of one year or till its approved by the competent authority whichever is earlier. Should there be any deviation / change in the layout plan (as contained in the project proposal on which EC is granted), the Project Proponent shall furnish a copy along with a request to SEIAA, Bihar to make necessary correction / revision in the EC accordingly. Any failure on part of the Project Proponent in doing so will be treated as a violation of EC condition.
15. The SEIAA may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
16. The SEIAA reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.



17. The Regional Office of the MoEF&CC, GoI / SEIAA shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information / monitoring reports.
18. Project proponent shall erect a signboard on his project site and display information regarding name of the project, No. date and validity period of EC, and other relevant information for the general public.
19. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.
20. Environmental clearance shall remain valid for a maximum period of 7 years or completion of project whichever is earlier.
21. Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.



Annexure - VI (For Sand Mining Projects - EC)

A. Specific Condition

1. The EC shall be valid upto 31.10.2020 or expiry of mine leases whichever is earlier.
2. The Project Proponent shall submit copy of mining plan valid upto 31.10.2020 or lease period whichever is earlier to SEIAA before starting any mining activity.
3. Movement of empty and loaded vehicles for the transportation of mined out material from the concerned sand ghats shall be done only after sunset and before sunrise.
4. The individual sand ghats miner will take appropriate measures to avoid parking of empty / loaded vehicles on nearest highway / public roads to avoid traffic congestion.
5. The project proponent will adhere to provisions of NMCG Authority Notification, 2016 to be read with 2nd amendment vide S.O. 3163 (E) dated 02.09.2019 and S.O. 3163 (E) dated 14th September 2019.
6. Project proponent and the Department of Mines, Govt. of Bihar will ensure to adhere to all applicable provision of Sustainable Sand Mining Management Guidelines, 2016 (SSMG-2016) and Enforcement & Monitoring Guidelines for Sand Enforcement & Monitoring Guidelines for Sand Mining, 2020 (EMGSM-2020) issued by the MoEF&CC, Govt. of India.
7. The project proponent and the Department of Mines, Govt. of Bihar will ensure not to increase the mining capacity/day and deployment of number of trucks/day to evacuate mined material i.e. sand as projected in Chapter - 4 (Traffic Analysis) given in the final EIA report of respective sand Ghats.
8. EC conditions which are in the interest of public at large must be displayed throughout the project life at prominent place which can be easily visible to public mentioning the address and contact number of authority to whom violation of EC conditions can be reported.



9. The mined material i.e. sand shall be stored in a pre-defined place given in the EIA report and shall be properly barricaded by erecting suitable windscreen upto. 10 meter height to prevent dispersion of particulate matter.
10. Necessary approval/permission shall be obtained from competent authority to use evacuation route outside the mining lease boundary within and outside river bed.

B. Statutory Condition

1. The Project Proponent shall submit to SEIAA, Bihar, a copy of the lease deed of each mining area / Ghat (separately) before starting actual mining on site.
2. The Project proponent will obtain CTE from the BSPCB before preparing site mining if applicable and CTO before starting the mining operation.
3. The project proponent before starting any activity /preparation of ground, on the leased area shall demarcate his lease hold by RCC pillar erected at the cost of lease holder after certification of the mining officer. On each pillar Geo-Coordinate shall be written with permanent paint mark as described in the mining plan.
4. Extraction beyond annual production capacity shall not be done in case where balance validity period is short or less than an year.
5. Semi-mechanized, preferably manual method shall be used for the River Bed Mining.
6. Excavation will be carried out up to a maximum depth of 3 meters from surface of mineral deposit and not less than one meter from the water level of the River channel whichever is reached earlier.
7. No mining shall be carried out in the areas prominently used by wild animals (birds and reptiles) for nesting.
8. No mining shall be carried out in 3-meter-wide strip from the river bank in a River flood plain and within flowing/live water channel.
9. To maintain the safety and stability of Riverbanks, 3 meter or 10% of the width of the River whichever is more will be left intact as "No Mining Zone".



10. No stream shall be diverted for the purpose of sand mining. No natural water course and / or water reservoirs shall be obstructed due to mining operations.
11. Restricted working hours. Sand mining operation shall be carried out in day hours only.
12. The pollution due to transportation load on the environment will be effectively controlled & water sprinkling will also be done regularly. Vehicles with PUC only will be allowed to ply. The mineral transportation shall be carried out through covered vehicles / trucks only and the vehicle shall not be overloaded. Project should obtain 'PUC' certificate for all the vehicles from authorized pollution testing center.
13. The height of sand stock should not increase more than 2 meter in height and entire stock area should be propyl fenced by erecting wind shield up to 4 meter in height.
14. Rubbish burial shall not be done in the Rivers or river bank.
15. Adequate steps shall be taken to check soil erosion and control of debris flow etc. by constructing engineering structures.
16. Mining shall not be undertaken in a mining lease located in 200 - 500 meter of bridge, 200 meter upstream and downstream of water supply / irrigation scheme, 100 meters from the edge of National Highway and railway line, 50 meters from a reservoir, channel or building, 25 meter from the edge of State Highway and 10 meters from the edge of others roads.
17. Mining activity shall not be done for mine lease where mining can cause danger to site of flood protection works, places of cultural, religious, historical, and archaeological importance.
18. The approach road from loading point upto main road shall be properly developed with proper width and geometry required for safe movement of traffic by lease holder at his own cost.
19. Main haulage road in the mine shall be provided with permanent water sprinklers and other roads shall be regularly wetted with water tankers fitted with sprinklers.



20. Transportation of the Minerals by road passing through the village shall not be allowed. A 'bypass' road should be constructed (say, leaving a gap of at least 200 meters) for the purpose of transportation of the minerals so that the impact of sound, dust and accidents could be mitigated. The Project Proponent shall bear the cost towards the widening and strengthening of existing public road-network in case the same is proposed to be used for the Project. No road movement should be allowed on existing village road network without appropriately increasing the carrying capacity of such roads.
21. The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 1st May 2018, as applicable, regarding Corporate Environment Responsibility.
22. Project Proponent shall appoint a Monitoring committee to monitor the replenishment study, traffic management, levels of production, river Bank erosion and maintenance of Road etc.
23. Project Proponent shall submit the annual replenishment report certified by an authorized agency. In case the replenishment is lower than the approved rate of production, then the mining activity / production levels shall be decreased / stopped accordingly till the replenishment is completed.
24. Regular monitoring of the flow rate of the springs and seasonal nallhas flowing in and around the mine lease shall be carried out and records maintained. Regular monitoring of water quality upstream and downstream of water bodies shall be carried out and record of monitoring data should be maintained and submitted to the SEIAA, Bihar, Regional office, Ranchi, Central Ground water Authority, Regional Director, Central Ground water Board, State Pollution Control Board and Central Pollution Control Board.
25. Project proponent shall erect a signboard on his project site and display information regarding name of the project, No. & date of validity period of EC, annual production capacity of the mineral and other relevant information for the general public.
26. Apart from above the project proponent shall abide by the Sustainable Sand Mining Management Guidelines 2016 as issued MoEF&CC.



27. The mining lease holders shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc.
28. All specific and general conditions which are of public concern at large shall be permanently displayed at a prominent place for public along with address and contact details of authority where the violation of EC conditions can be reported.
29. (a) The Project Proponent shall stick to the proposal mentioned in CER and display the name of beneficiary and trainee and details of equipment provided to them. The size of sign board shall not be less than be 6x4 feet.
(b) Expenses on CER shall be incurred at least in proportion of 1/5th (taking 5 years as lease period) for balance lease period being short or less than an year.

C. General condition

1. No stacking of sand is allowed on road side along national highways/ State highways.
2. No labour camp shall be allowed in riverbed.
3. Provision shall be made for housing labour with all necessary infrastructure and facilities (out of mining Block and river-bed) such as fuel for cooking, toilets / mobile toilets, safe drinking water, First-Aid facilities, crèche etc. The housing shall be in the form of temporary structures to be removed after the completion of the project.
4. Labour & Personnel working in dusty areas shall wear protective respiratory devices and they shall also be provided with adequate training and information on safety and health aspects. Occupational health surveillance program of the workers shall be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.
5. The Project Proponent shall make arrangements for safe drinking water, first aid facility along with anti-venom injection, in case of emergency for the workers.

6. The project proponent shall maintain register for production and dispatch and submit periodic return (six-monthly) to the SEIAA, Bihar. If the remaining period of lease is for less than an year the Project Proponent shall submit a monthly return of production.
7. The EC holder shall keep a correct account of quantity of mineral mined out, dispatched from the mine, mode of transport, registration number of vehicle and mine plan. This should be produced before officers of Central Government and State for inspection whenever asked for.
8. Regular monitoring of ground water table shall be carried out at the upstream and depth of water available in the dug well.
9. Monitoring of Ambient Air Quality, Water Quality & Noise Quality shall be carried out based on the Notification, as amended from time to time by the Central Pollution Control Board. Water sprinkling should be increased at places of loading and unloading points & transfer points to reduce fugitive emissions.
10. The funds earmarked for environmental protection measures should be kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to the SEIAA, Bihar.
11. The Project proponent shall provide all necessary logistic support to the authorised officer of this authority as when required. They will facilitate and assist the authority in site inspection and monitoring.
12. Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India vide order dated 27.02.2012 in Deepak Kumar case [SLAP(C) Nos. 19628-19629 of 2009] and order dated 05.08.2013 of the Hon'ble National Green Tribunal in application No. 171/2013 shall be strictly followed.
13. All the provisions made and restrictions imposed as envisaged in the Bihar Minor Mineral Rule, shall be complied with; particularly regarding Environment Management and payment of compensation to the land owners.
14. No change in mining technology and scope of working should be made without prior approval of the SEIAA, Bihar.



15. The ministry / SEIAA may alter / modify the above conditions or stipulate any additional condition in the interest of environment.
16. Concealing factual data or submission of false / fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal/suspension of this clearance and attract action under the provisions of the Environment (Protection) Act, 1986.
17. The instruction contained herein above regarding air and noise pollution and details of mining proposals shall be displayed on Signboard in Hindi for public information.
18. The SEIAA may impose additional conditions in the interest of Environment & Ecology whenever it becomes necessary to do so.
19. Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under section 16 of the National Green Tribunal Act, 2010.



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